What is claimed is:

1. A moveable micromirror comprising:

a supporting structure;

a flexible post extending from the supporting structure; and

a table extending radially from the end of the post along a plane generally perpendicular to the post, the table having a reflective surface facing away from the supporting structure,

wherein the post is so constructed so as to be sufficiently flexible to allow the reflective surface to be selectively moveable and positionable, with at least two degrees of freedom, when urged by a suitable actuating force.

2. The moveable micromirror of claim 1 wherein the flexible post extends from the supporting structure from within a trench in the supporting structure such that more than one half of the length of the post is within the trench.

3. The movable micromirror of claim 2 wherein at least three-quarters of the length of the post is within the trench.

4. The moveable micromirror of claim 1 wherein the supporting structure and the post are formed of a single crystal of silicon.

5. The moveable micromirror of claim 1 further comprising conductive pads positioned on a surface of the supporting structure facing the table, and wherein the table includes a conductive material.

6. The moveable micromirror of claim 5 wherein the average distance from the surfaces of the conductive pads to the surface of the table facing the conductive pads is less than the length of the post.

7. The moveable micromirror of claim 6 wherein the average distance from the surfaces of the conductive pads to the surface of the table facing the conductive pads is less than one-half the length of the post.

8. The moveable micromirror of claim 7 wherein the average distance from the surfaces of the conductive pads to the surface of the table facing the conductive pads is less than one-third the length of the post.

9. The moveable micromirror of claim 1 further comprising an electrostatic actuator structured and arranged so as to be able to selectively position the reflective surface.

10. The moveable micromirror of claim 1 further comprising an electromagnetic actuator structured and arranged so as to be able to selectively position the reflective surface.

11. The moveable micromirror of claim 1 further comprising a piezoelectric actuator structured and arranged so as to be able to selectively position the reflective surface.

12. The moveable micromirror of claim 1 further comprising a thermal actuator structured and arranged so as to be able to selectively position the reflective surface.

13. An array of moveable micromirrors comprising two or more micromirrors as recited in claim 1.

14. A moveable micromirror for selectively directing optical beams, the micromirror comprising:

a substrate formed of a first single crystal of silicon;

a post extending from within a moat in a surface of the substrate, the post being formed of the single crystal of silicon;

a table fixed to and supported by the post and having a reflective surface facing away from the surface of the substrate and a second surface facing the surface of the substrate, the distance from the surface of the substrate to the second surface of the table being less than the length of the post; and

an actuator positioned on the surface of the substrate adjacent the second surface of the table and structured so as to be able to selectively position the table by applying an actuating force to the table

wherein the post is sufficiently flexible to allow the reflective surface to be selectively moveable and positionable by the actuator.

15. The moveable mirror of claim 14 wherein the actuator is an electrostatic actuator.

16. An array of micromirrors comprising at least two of the moveable mirror recited in claim 14.

17. A method of making an array of moveable micromirrors, the method including:

deep etching a silicon substrate so as to form posts surrounded by trenches;

etching back the surface of the substrate around the posts so as to allow the posts to protrude beyond the surface of the substrate; and

affixing a mirror to the top of a plurality of the posts.

18. The method of claim 17 wherein the step of affixing a mirror to the top of a plurality of the posts includes:

bonding a wafer to the tops of the plurality of the posts;

depositing one or more reflective layers on the surface of the wafer opposite the posts; and

deep-etching the wafer to separate the wafer into individual mirrors affixed to the top of each post of the plurality of the posts.

19. The method of claim 18 wherein the step of affixing a mirror to the top of a plurality of the posts further includes, before the step of bonding a wafer to the tops of the plurality of the posts, the step of forming a removable layer on the substrate, and wherein the step of bonding a wafer to the tops of the plurality of the posts includes positioning the wafer in contact with the tops of the posts and in contact with the removeable layer.

20. The method of claim 19 wherein the removeable layer is a layer of photoresist.

21. The method of claim 19 wherein the step of bonding a wafer to the tops of the plurality of the posts includes etching notches in the wafer and aligning the notches with the plurality of the posts such that the plurality of the posts are positioned within the notches and are bonded to the wafer in the notches.

22. The method of claim 18 wherein the step of deep etching the wafer to separate the wafer into individual mirrors includes deep reactive ion etching.

23. The method of claim 17 wherein the step of deep etching the silicon substrate includes deep reactive ion etching.